

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) An arc tube comprising:

an arc tube body; and

a foil joined with the arc tube body by pinch seal, the arc tube body having a compressive stress of 10^5 N/m^2 or more along a junction surface with the foil at an ordinary temperature, said arc tube body containing quartz glass.

2. (Original) The arc tube according to claim 1, wherein a ratio A/B of a width A and a thickness B in a pinch seal portion of the arc tube is $1.8 \leq A/B \leq 2.8$.

3. (Original) The arc tube according to claim 1, wherein the foil is elongated no more than 15% of the foil's pre-pinch seal dimension

4. (Original) The arc tube according to claim 2, wherein the foil is elongated no more than 15% of the foil's pre-pinch seal dimension.

5. (Currently Amended) The arc tube according to claim 1, further including a plurality of cracks formed on the junction surface of the foil and the arc tube body, wherein a maximum depth of the cracks is 50% or less of a thickness of the molybdenum foil.

6. (Currently Amended) The arc tube according to claim 2, further including a plurality of cracks formed on the junction surface of the foil and the arc tube body, wherein a maximum depth of the cracks is 50% or less of a thickness of the molybdenum foil.

7. (Currently Amended) The arc tube according to claim 3, further including a plurality of cracks formed on the junction surface of the foil and the arc tube body, wherein a maximum depth of the cracks is 50% or less of a thickness of the molybdenum foil.

8. (Original) The arc tube according to claim 1, wherein the foil contains molybdenum.

9. through 14. (Cancelled)

15. (New) The arc tube according claim 1, wherein:
the junction surface is roughened; and
a plurality of cracks extend from the junction surface substantially into a thickness of the molybdenum foil, up to a maximum depth of approximately 50% of said thickness.

16. (New) The arc tube according claim 2, wherein:

the junction surface is roughened; and
a plurality of cracks extend from the junction surface substantially into a thickness of the molybdenum foil, up to a maximum depth of approximately 50% of said thickness.

17. (New) The arc tube according claim 3, wherein:
the junction surface is roughened; and
a plurality of cracks extend from the junction surface substantially into a thickness of the molybdenum foil, up to a maximum depth of approximately 50% of said thickness.